

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L1	2232	(deposit\$3) same silicon same (tungsten adj silicide)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2002/10/16 13:08
2	BRS	L2	161	(deposit\$3) adj10 silicon adj10 (tungsten adj silicide)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2002/10/16 13:08

US-PAT-NO: 6251188

DOCUMENT-IDENTIFIER: US 6251188 B1

TITLE: Apparatus for forming laminated thin films or layers

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After formation of the tungsten silicide layer 12, an after-treatment is carried out with the wafer W left disposed on the susceptor 26 (step S4). In the first step, the inner atmosphere of the process vessel 18 is evacuated by vacuum suction. Under this condition, a silane-series gas, e.g., $\text{SiH}_{3.4}$ gas, is supplied into the process chamber 20 for a short time, e.g., about 60 seconds, while substantially maintaining the temperature in the step of forming the tungsten silicide layer 12, e.g., 600 to 700.degree. C., so as to deposit silicon slightly on the surface of the tungsten silicide layer. The silicon deposition amount is controlled to form a thin silicon film on the tungsten silicide layer 12 or to allow silicon flakes to be attached only slightly to the tungsten silicide layer not to form a continuous silicon film. The deposited silicon permits moderating the stress within the tungsten silicide layer so as to improve the bonding strength between the polysilicon layer 10 and the tungsten silicide layer 12, as described herein later. Also, the deposited silicon makes it possible to prevent the tungsten silicide layer 12 from being attacked by oxygen in the subsequent heat treatment step.

PGPUB-DOCUMENT-NUMBER: 20010052625

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010052625 A1

TITLE: Semiconductor memory device and manufacturing method therefor

PUBLICATION-DATE: December 20, 2001

US-CL-CURRENT: 257/390,438/275 ,438/279

APPL-NO: 09/ 883702

DATE FILED: June 18, 2001

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO

DOC-ID

APPL-DATE

JP 2000-182498

2000JP-2000-182498

June 19, 2000

----- KWIC -----

Detail Description Paragraph - DETX:

[0030] Subsequently, the interlayer insulating film 5 is etched after performing photolithography using a code reticule having a uniform pattern density, and ion injection windows are formed on each channel region (see FIG. 1) of the entire memory cell area at a size of 0.18 to 0.24 .mu.m. At the time of etching, since the tungsten silicide films of the interlayer insulating film 5 and the gate electrode 3 have a high selection ratio, the gate electrode 3 is not etched out. However, the thickness of the gate electrode may be reduced in a etching process. It is possible to prevent the etching loss by depositing a silicon film or a silicon nitride (SiN) film on the

tungsten silicide film with
a thickness of 50 .mu.m. Consequently, the gate electrode
can be protected
from being converted to a high resistance film due to
etching loss, and the ion
injection windows can be formed without affecting the gate
electrode portion
(FIG. 3D).

PGPUB-DOCUMENT-NUMBER: 20010026972

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010026972 A1

TITLE: Integrated circuit device with MIM capacitance
circuit and method of
manufacturing the same

PUBLICATION-DATE: October 4, 2001

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APPL-NO: 09/ 805479

DATE FILED: March 13, 2001

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO

DOC-ID

APPL-DATE

JP 2000-091744

2000JP-2000-091744

March 29, 2000

----- KWIC -----

Detail Description Paragraph - DETX:

[0064] After the above dry etching process, an ammonia-based solution is used to remove resist masks 134, 135. At this time, since silicon layer 203 has been deposited on the surface of tungsten silicide layer 131, a silicon component is prevented from flowing out of tungsten silicide layer 131 due to the ammonia-based solution, and hence the silicon concentration in tungsten silicide layer 131 is prevented from being reduced.